

1 **What Is Claimed Is**

- 2 1. A band including a split compound yarn and a rubber yarn woven
3 together with the split compound yarn.
- 4 2. The band according to claim 1 wherein the band is made by means of
5 a process including the steps of:
- 6 making the compound yarn;
- 7 providing the rubber yarn;
- 8 weaving the compound yarn together with the rubber yarn so as
9 to form the band; and
- 10 washing the band so as to split the compound yarn.
- 11 3. The band according to claim 2 wherein the compound yarn is made of
12 first material and second material.
- 13 4. The band according to claim 3 wherein the step of making the
14 compound yarn includes the steps of:
- 15 melting and extruding the first material;
- 16 melting and extruding the second material;
- 17 pumping the molten first material and the molten second material
18 at predetermined rates;
- 19 spinning filaments from the molten first material;
- 20 spinning filaments from the molten second material;
- 21 cooling the filaments;
- 22 extending the filaments so as to form the compound yarn;
- 23 heating and setting the compound yarn; and
- 24 reeling the compound yarn.
- 25 5. The band according to claim 4 wherein the step of making the
26 compound yarn includes a step of facilitating the splitting of the

- 1 compound yarn.
- 2 6. The band according to claim 5 wherein the step of facilitating the
- 3 splitting of the compound yarn is a chemical step.
- 4 7. The band according to claim 6 wherein the chemical step is taken in
- 5 the step of melting and extruding one of the first material and the
- 6 second material.
- 7 8. The band according to claim 7 wherein the chemical step is a step of
- 8 adding nucleated agent to one of the first material and the second
- 9 material.
- 10 9. The band according to claim 8 wherein the nucleated agent is selected
- 11 from a group of CaSiO₃, SiO₂ and MoS₂.
- 12 10. The band according to claim 7 wherein the chemical step is a step of
- 13 adding splitting agent to one of the first material and the second
- 14 material.
- 15 11. The band according to claim 10 wherein the splitting agent is
- 16 superfine Teflon.
- 17 12. The band according to claim 7 wherein the chemical step is a step of
- 18 making one of the first material and the second material via mixing
- 19 20-80% of amorphous polymer with 80-20% of crystal polymer.
- 20 13. The band according to claim 7 wherein the chemical step is a step of
- 21 melting the first material and the second material at carefully
- 22 calculated temperatures so that the stickiness of the first material to
- 23 the second material is low.
- 24 14. The band according to claim 5 wherein the step of facilitating the
- 25 splitting of the compound yarn is a mechanical step.
- 26 15. The band according to claim 14 wherein the mechanical step is taken

- 1 in the step of spinning the compound yarn.
- 2 16. The band according to claim 15 wherein the mechanical step is
- 3 reeling the compound yarn at a rate of 3000-8000 meter per minute so
- 4 that the first material crystallizes at a rate adequately different from a
- 5 rate at which the second material crystallizes.
- 6 17. The band according to claim 1 wherein the band is a wristband.
- 7 18. The band according to claim 1 wherein the band is a headband.
- 8 19. The band according to claim 3 wherein the first material is such as
- 9 nylon.
- 10 20. The band according to claim 3 wherein the second material is
- 11 polyester.

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